

**Amendments to the Claims**

This listing of claims replaces all prior versions, and listings, of the claims in the application.

**Listing of Claims:**

Claims 1-80 (Canceled).

81. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis*, said probe comprising a target binding region having the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under stringent conditions.

82. (New) The probe of claim 81, wherein the base sequence of said target binding region consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4, and wherein said probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

83. (New) The probe of claim 82, wherein said probe is a self-hybridizing probe under said stringent conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

84. (New) The probe of claim 83, wherein said probe comprises a pair of interacting labels.

85. (New) The probe of claim 81, wherein said probe is up to 50 bases in length.

86. (New) The probe of claim 81, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4.

87. (New) The probe of claim 81, wherein said probe comprises a detectable label.

88. (New) The probe of claim 81, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

89. (New) The probe of claim 81, wherein a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

90. (New) The probe of claim 81, wherein said stringent conditions include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M.

91. (New) A composition comprising said probe of claim 81 hybridized to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

92. (New) A probe mix comprising said probe of claim 81 and a helper probe.

93. (New) The probe mix of claim 92, wherein the base sequence of said helper probe consists of the base sequence of SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27 or SEQ ID NO:28.

94. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

a) contacting a test sample with said probe of claim 81 under said stringent conditions;  
and

b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.

95. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis*, said probe comprising a target binding region having the base sequence of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19 or SEQ ID NO:20, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under stringent conditions.

96. (New) The probe of claim 95, wherein said target binding region is up to 30 bases in length, and wherein said probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

97. (New) The probe of claim 96, wherein said probe is a self-hybridizing probe under said stringent conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

98. (New) The probe of claim 97, wherein said probe comprises a pair of interacting labels.

99. (New) The probe of claim 95, wherein said probe is up to 50 bases in length.

100. (New) The probe of claim 95, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

101. (New) The probe of claim 100, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

102. (New) The probe of claim 95, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

103. (New) The probe of claim 102, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

104. (New) The probe of claim 95, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

105. (New) The probe of claim 104, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

106. (New) The probe of claim 95, wherein said probe comprises a detectable label.

107. (New) The probe of claim 95, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety.

108. (New) The probe of claim 95, wherein a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

109. (New) The probe of claim 95, wherein said stringent conditions include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M.

110. (New) A composition comprising said probe of claim 95 hybridized to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

111. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

- a) contacting a test sample with said probe of claim 95 under said stringent conditions; and
- b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.

112. (New) A kit for determining the presence of *Trichomonas vaginalis*, said kit comprising:

- said detection probe of claim 81; and
- a capture probe comprising a target binding region having the base sequence of SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31 or SEQ ID NO:32.

113. (New) The kit of claim 112, wherein:  
the base sequence of said target binding region of said detection probe consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4, and said detection probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions; and  
said capture probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

114. (New) The kit of claim 113, wherein the base sequence of said detection probe consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4.

115. (New) The kit of claim 112, wherein said detection probe comprises a detectable label.

116. (New) The kit of claim 112, wherein said stringent conditions include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M.

117. (New) The kit of claim 112 further comprising a helper probe, wherein the base sequence of said helper probe consists of the base sequence of SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27 or SEQ ID NO:28.

118. (New) The kit of claim 117, wherein:  
the base sequence of said target binding region of said detection probe consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4, and said detection probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions; and  
said capture probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

119. (New) The kit of claim 118, wherein the base sequence of said detection probe is SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4.

120. (New) The kit of claim 117, wherein said detection probe comprises a detectable label.

121. (New) The kit of claim 117, wherein said stringent conditions include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M.

122. (New) A kit for determining the presence of *Trichomonas vaginalis*, said kit comprising:

said detection probe of claim 95; and

a capture probe comprising a target binding region having the base sequence of SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31 or SEQ ID NO:32.

123. (New) The kit of claim 122, wherein:

said detection probe does not comprise a region in addition to said target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions; and

said capture probe does not comprise a region in addition to the target binding region which stably hybridizes to nucleic acid derived from *Trichomonas vaginalis* under said stringent conditions.

124. (New) The kit of claim 123, wherein the base sequence of said detection probe consists of or is contained within the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

125. (New) The kit of claim 124, wherein the base sequence of said detection probe consists of the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

126. (New) The kit of claim 123, wherein the base sequence of said detection probe consists of or is contained within the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

127. (New) The kit of claim 126, wherein the base sequence of said detection probe consists of the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

128. (New) The kit of claim 123, wherein the base sequence of said detection probe consists of or is contained within the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

129. (New) The kit of claim 128, wherein the base sequence of said detection probe consists of the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

130. (New) The kit of claim 122, wherein said detection probe comprises a detectable label.

131. (New) The kit of claim 122, wherein said stringent conditions include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M.